

CLAIMS

What we claim is:

1. A carpet comprising at least a pile layer and at least one backing layer, wherein said pile layer comprises fibers extending in a direction opposite said at least one backing layer, wherein at least backing layer comprises a plurality of thermoplastic fibers, wherein at least one of said thermoplastic fibers comprises at least 10 ppm of at least one nucleator compound.
2. The carpet of Claim 1 wherein said nucleator compound is selected from the group consisting of p-MDBS, 3,4-DMDBS, 2,4,5-TMDBS, DBS, sodium benzoate, NA-11, NA-21, and any mixtures thereof.
3. The carpet of Claim 2 wherein said nucleating agent is p-MDBS.
4. A carpet comprising at least a pile layer and at least one backing layer, wherein said pile layer comprises fibers extending in a direction opposite said at least one backing layer, wherein at least backing layer comprises a plurality of thermoplastic fibers, wherein at least one of said thermoplastic fibers comprises comprises at least 10 ppm of a nucleator compound and exhibits a tensile strength of at least 3 grams/denier.
5. The carpet of Claim 4 wherein said nucleator compound is selected from the group consisting of p-MDBS, 3,4-DMDBS, 2,4,5-TMDBS, DBS, sodium benzoate, NA-11, NA-21, and any mixtures thereof.

6. The carpet of Claim 5 wherein said nucleating agent is p-MDBS.

7. A carpet comprising at least a pile layer and at least one backing layer, wherein said pile layer comprises fibers extending in a direction opposite said at least one backing layer, wherein at least backing layer comprises a plurality of thermoplastic fibers, wherein at least one of said thermoplastic fibers comprises at least 10 ppm of a nucleator compound and exhibits a shrinkage rate after exposure to 150°C hot air of less than 2%, and a tensile strength of greater than 2.5 grams/denier.

8. The carpet of Claim 7 wherein said nucleator compound is selected from the group consisting of p-MDBS, 3,4-DMDBS, 2,4,5-TMDBS, DBS, sodium benzoate, NA-11, NA-21, and any mixtures thereof.

9. The carpet of Claim 8 wherein said nucleating agent is p-MDBS.

10. A carpet comprising at least a pile layer and at least one backing layer, wherein said pile layer comprises fibers extending in a direction opposite said at least one backing layer, wherein at least backing layer comprises a plurality of thermoplastic fibers, wherein at least one of said thermoplastic fibers comprises at least 10 ppm of a nucleator compound and exhibits an x-ray scattering pattern such that the center of the scattering peak is at 0.4 degrees or lower.

11. The carpet of Claim 10 wherein said nucleating agent is selected from the group consisting of p-MDBS, 3,4-DMDBS, 2,4,5-TMDBS, DBS, sodium benzoate, NA-11, NA-21, and any mixtures thereof.

12. The carpet of Claim 11 wherein said nucleating agent is p-MDBS.